



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,211	06/14/2001	Bernhard Jansen	Mo-6368/Lea 33,233	6996

34947 7590 09/25/2003

BAYER CHEMICALS CORPORATION  
100 BAYER ROAD  
PITTSBURGH, PA 15205

EXAMINER

SALVATORE, LYNDIA

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/868,211	JANSEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lynda M Salvatore	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16 and 18-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16 and 18-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment and accompanying remarks have been carefully considered and entered. Claims 14, 15, and 17 have been cancelled, claim 23 has been amended, and claim 28 has been added as requested. Applicant's cancellation of claim 17 renders moot the 35 U.S.C. 112 second paragraph rejection set forth in sections 4-6 of the last Office Action. However, despite this advance Applicant's amendments are not found to patently distinguish the claims over the prior art of record and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

### ***Specification***

2. The guidelines set forth in sections 1 and 2 of the last Office Action illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use. Appropriate correction is required.

### ***Claim Objections***

3. Claims 16-27 depend from canceled claims 14 and 17. Appropriate correction is required. These claims will be examined based on the assumption that they should depend from claim 28.

### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 16, 18-23 and 25-27 stand rejected and newly added claim 28 is presently rejected under 35 U.S.C. 103(a) as being unpatentable over Dybdal et al., WO 96/19611 and Carroll, US

Art Unit: 1771

3,847,543 and further in view of Laas et al., US 5,731,396 as set forth in section 8 of the last Office Action.

To begin, the Examiner would like to remind the Applicant that claims 16-23 depend from canceled claim 14, but for purposes of this Office Action they will be treated as if they depend from claim 28 instead. To that end, the arguments applied to these claims are consistent to those applied to claims 16-23 in section 8 of the last Office Action since newly added independent claim 28 is based on the subject matter of canceled claims 14, 15 and 17.

Applicant argues that secondary references of Carroll fails to explicitly or implicitly teach modification of the primary reference of Dybdal et al., and further asserts that process of Dybdal et al., requires treating the wool with a proteolytic enzyme, whereas the instant invention requires the treatment of the wool with the self-dispersing isocyanates. (Applicant's response, spanning pages 7-10). This argument is not persuasive on the grounds that the Applicant's open claim language of a *process comprising* does not preclude treatment with a proteolytic enzyme. With regard to whether motivation exists to employ the teachings of Carroll to modify the invention of Dybdal et al., it is the position of the Examiner that Carroll does provide strong and clear motivation for such a modification since Carroll explicitly teaches treating wool substrates with polyisocyanate to impart reduce shrinkage. Therefore, because claim 28 is not especially limited to a set process it is the position of the Examiner that the choice to treat to the wool with isocyanate and/or a proteolytic enzyme to impart reduced shrinkage would easily be recognized by one of ordinary skill in the art based on the teachings of Carroll (Applicant's response, page 10).

Art Unit: 1771

Applicant further argues the combination of Carroll with Laas et al. Specifically, the Applicant asserts that the polyisocyanate of Carroll comprises two components which have not yet been reacted with each other, whereas the Applicant's self-dispersing isocyanate is contacted with a dispersion of isocyanates, which have already been prepared (Applicant's response, Page 10-11). This argument is not found persuasive on the grounds that the Carroll reference was supplied to provide a teaching to the use of isocyanate to specifically treat wool, rather than to teach the claimed composition. Having already shown that proper motivation exists to treat wool with isocyanate the Examiner provided the Laas et al., reference as evidence that the claimed composition is known in the art. The Applicant argues that the self-dispersing isocyanate taught by Laas et al., are structurally different than those employed by the instant invention. The Applicant contends that the isocyanates of Laas et al., comprise opened  $\epsilon$ -caprolactone repeating units which allows the use of a lower number of polyethyleneoxide units. In response, the Examiner would like to remind the Applicant that the isocyanate is claimed in terms of NCO content and functionality not individual reactive constituents. Without such limitations, it is the position of the Examiner that self-dispersing isocyanate taught by Laas et al., meets the recited isocyanate limitations set forth in instant claim 28. Recall, the isocyanate mixture comprises an isocyanate group content (calculated as NCO molecular weight 42) of 7.0 to 21.5 weight percent, an ethylene oxide content (calculated as molecular weight 44) of 5 to 25 weight percent and an average NCO functionality of 1.8 to 4.6 (Column 3, 34- Column 4, 17). The polyisocyanates are selected from the group consisting of aliphatically or cycloaliphatically having NCO functionality from 2.1 to 5.0 (Column 4, 27-34). The number of ethylene oxide units is more than

Art Unit: 1771

10 (Column 6, 49-50). The amount of ethylene radicals, based on the total quantity of alkylene radicals is at least 80 mole percent (Column 5, 15-17).

Applicant further argues that the combination of Carroll and Laas et al., does not provide reasonable expectation of successfully providing wool with an anti-felt finish since the Laas et al., disclosure is in a completely different field of application (Applicant's response, page 12). This argument is also not found persuasive on the grounds that Laas et al., not only discloses in the background of the invention that water dispersible polyisocyanates are useful in environmentally sound textile finishing (Column 1, 37-40), but that coating composition may be applied to any substrate such as textiles (Column 8, 9-14). Thus, it is position of the Examiner that Laas et al., provides strong evidence to treat textiles with isocyanate and based on the earlier teachings of Carroll et al., to specifically treat wool.

6. Claim 24 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Dybdal et al., WO 96/19611 in view of Laas et al., US 5,731,396 as applied to claim 17, and further in view of Vogel et al., US 5,047,065.

The Examiner is basing this rejection on the assumption that claim 24 should depend from claim 28.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1771

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

September 11, 2003

ls 

  
TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700